

Notice of Allowability

Application No.

10/021,840

Examiner

Joyce Tung

Applicant(s)

IWAKI ET AL.

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/4/2004.
2. ☒ The allowed claim(s) is/are claims 1-11, 15-17 and 19-20 (final claims 1-16).
3. ☒ The drawings filed on 13 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>10272004</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>6/15/2004</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. The response filed 8/4/2004 to the Office action has been entered. Claims 1-17 and 19-21 are pending.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Sylvia Tan on October 27, 2004.

3. The application has been amended as follows:

Cancel claims 12-14 and 21.

In claim 15, line 5, after "mucopolysaccharide", delete "have" and substitute therefor -- having --.

4. The following is an examiner's statement of reasons for allowance:

Concerning claims 1-11, no prior art has been found teaching or suggesting the process for treating a device for detection of biochemically active molecules comprising the steps of bringing in an aqueous medium a detection device having probe, ionic reactive groups and non-ionic reactive groups on a surface into contact with compounds which react with the non-ionic reactive groups to produce covalent bondings and compounds other than the above compounds which form electrostatic bondings in conjunction with the ionic reactive groups, simultaneously or separately and washing the surface of the detection device with an aqueous solvent or a water miscible solvent.

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Concerning claims 15-17 and 19-20, no prior art has been found teaching or suggesting the process for treating a device for detection of biochemically active molecules comprising bringing in an aqueous medium a detection device having probe molecules and amino groups on a surface, contacting with compounds selected from the group consisting of dextran sulfate, mucopolysaccharide having sulfonyl group, taurine having sulfonyl group, polypeptide having carboxyl group and polysaccharide having carboxyl group which form electrostatic bondings in conjunction with the amino groups.

The closest prior art is the reference of Bardhan et al. (US patent application No. 2002/0142339). Bardhan et al. teach a planar, rigid substrate made from porous, inorganic material coated with cationic polymer molecules for attachment of array of biomolecules (See the Abstract). Bardhan et al. do not teach that ionic reactive groups are amino groups and compounds, which form electrostatic bondings in conjunction with ionic reactive groups.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is 703 (305) 7112. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 703 308 1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joyce Tung *J. Tung*
October 27, 2004

Kenneth R. Horlick
KENNETH R. HORLICK, PH.D
PRIMARY EXAMINER
10/28/04